IN THE CLAIMS:

Claims 1-95 (Canceled).

96. (Previously Presented) A system to enable an electric arc welder having a controller designed to perform various welding processes using weld parameters and a welding wire or electrode comprising a first receptacle for a first memory button having a chip that includes digital data indicative of at least one welding condition and a circuit to load said at least one welding condition into a controller of said welder to control at least one operation of said welder, said at least one welding condition including a condition selected from the group consisting of a set of welding parameters, a welding process information, electrical characteristics of a welding procedure, shielding gas information, welding wire features, and combinations thereof.

97. (Previously Presented) The system as defined in claim 96, wherein said digital data of said first chip includes digital data defining selected qualifications of the operating welder and including a second receptacle for a second memory button having a chip that includes digital data indicative of actual welding qualifications of a welder; and a disable circuit to disable said welder to process said welder operation when said actual welding qualification fails to fall within a predefined deviation of said selected qualifications.

98. (Previously Presented) The system as defined in claim 96, including a program to update said digital data indicative of at least one actual welding qualification in response to the processing of said specific welding operation.

99. (Previously Presented) The system as defined in claim 97, including a program to

update said digital data indicative of at least one actual welding qualification in response to the processing of said specific welding operation.

100. (Previously Presented) The system as defined in claim 96, wherein the circuit includes a memory for storing said digital data and said first chip includes a coded data to output at least a portion of said digital data into said controller.

101. (Previously Presented) The system as defined in claim 97, wherein the circuit includes a memory for storing said digital data and said first chip includes a coded data to output at least a portion of said digital data into said controller.

102. (Previously Presented) The system as defined in claim 99, wherein the circuit includes a memory for storing said digital data and said first chip includes a coded data to output at least a portion of said digital data into said controller.

103. (Previously Presented) The system as defined in claim 96, wherein said digital data at least partially provided from a network and said first chip includes coded data to output at least a portion of said digital data into said controller.

104. (Previously Presented) The system as defined in claim 97, wherein said digital data at least partially provided from a network and said first chip includes coded data to output at least a portion of said digital data into said controller.

105. (Previously Presented) The system as defined in claim 102, wherein said digital data at least partially provided from a network and said first chip includes coded data to output at least a portion of said digital data into said controller.

106. (Previously Presented) A system for controlling an electric arc welder comprising a memory device loaded at least partially with digital data indicative of a specific welding condition, a controller that includes a digital processing device having a memory to receive said digital data and controlling said welder in compliance with said digital data, and a digital reading interface to at least partially load said digital data from said memory to said section of said controller, said memory device including a memory button having an IC chip, said welding condition including a condition selected from the group consisting of a set of welding parameters, a welding process information, electrical characteristics of a welding procedure, shielding gas information, welding wire features, and combinations thereof.

107. (Previously Presented) The system as defined in claim 106, wherein said IC chip at least partially loaded with said digital data and readable by touch when contacting an interface that includes a touch contactor in a receptacle to touch said memory button when said button is placed into said receptacle.

108. (Previously Presented) A system to control at least one electric arc welder at a weld station comprising a controller for the power supply and external drives at said weld station, a data entry station, and a logic network, said controller having a digital processing device that includes a section to receive digital data and at least partially control said welder in compliance with said

digital data, said digital data including a selected value for a weld condition, said data entry station enabling an operator to select a level for said weld condition, said logic network comparing said selected level and said selected value to create an action signal based upon said comparison.

109. (Previously Presented) The system as defined in claim 108, wherein said action signal includes a signal selected from the group consisting of a command signal setting said power supply or external drive to a given value for said external condition, a signal recording said condition, a signal to set said power supply at a value of external condition between a high and a low value, a signal disabling welder when selected level is not within a selected deviation from said selected value, and combinations thereof.

110. (Previously Presented) The system as defined in claim 108, wherein said weld condition includes a condition selected from the group consisting of travel speed of an external drive, wire feed speed of an external drive, arc current of said power supply, arc voltage of said power supply, and combinations thereof.

111. (Previously Presented) The system as defined in claim 109, wherein said weld condition includes a condition selected from the group consisting of travel speed of an external drive, wire feed speed of an external drive, arc current of said power supply, arc voltage of said power supply, and combinations thereof.

112. (Previously Presented) The system as defined in claim 108, including a sensor to read said weld condition on a real time basis and a circuit to disable said welder, said controller

generating a command signal for said weld condition based upon said welding operation and said action signal, said circuit disabling said welder when said sensed weld condition deviates from said command signal.

113. (Previously Presented) The system as defined in claim 109, including a sensor to read said weld condition on a real time basis and a circuit to disable said welder, said controller generating a command signal for said weld condition based upon said welding operation and said action signal, said circuit disabling said welder when said sensed weld condition deviates from said command signal.

114. (Previously Presented) The system as defined in claim 110, including a sensor to read said weld condition on a real time basis and a circuit to disable said welder, said controller generating a command signal for said weld condition based upon said welding operation and said action signal, said circuit disabling said welder when said sensed weld condition deviates from said command signal.

115. (Previously Presented) The system as defined in claim 108, wherein said data entry station is separate from said weld station.

116. (Previously Presented) The system as defined in claim 109, wherein said data entry station is separate from said weld station.

117. (Previously Presented) The system as defined in claim 114, wherein said data entry

station is separate from said weld station.

118. (Previously Presented) The system as defined in claim 108, wherein said weld station includes a robot.

119. (Previously Presented) The system as defined in claim 109, wherein said weld station includes a robot.

120. (Previously Presented) The system as defined in claim 117, wherein said weld station includes a robot.

121. (Currently Amended) A system control for controlling at least one electric arc welder at a weld station comprising a controller to at least partially control a power supply of said welder, a reading device to load control data containing a welding operation, said controller having a digital processing device with a memory to receive digital data and to at least partially control said welder in compliance with said digital data, said reading device adapted to load said control data into said memory, said control data including a selected level for a weld condition, said controller generating a command signal for said weld condition for a sensor to read said weld condition at least partially on a real time basis, and a comparator circuit to disable said welder, when said weld condition deviates from said selected level.

122. (Previously Presented) The system as defined in claim 121, wherein said weld condition includes a condition selected from the group consisting of travel speed of an external drive,

wire feed speed of an external drive, arc current of said power supply, arc voltage of said power supply, and combinations thereof.

123. (Previously Presented) The system as defined in claim 121, wherein one of said external drives includes a wire feeder.

124. (Previously Presented) The system as defined in claim 122, wherein one of said external drives includes a wire feeder.

125. (Previously Presented) The system as defined in claim 121, wherein one of said drives includes a robot drive for travel speed during welding.

126. (Previously Presented) The system as defined in claim 122, wherein one of said drives includes a robot drive for travel speed during welding.

127. (Previously Presented) The system as defined in claim 124, wherein one of said drives includes a robot drive for travel speed during welding.

128. (Previously Presented) A method of controlling an electric arc welder having a power supply, at least one external drive, and a controller for at least partially controlling said power supply and said at least one external drive, said method comprising:

(a) loading digital data containing a welding condition, said digital data including a value for the weld condition, at least a portion of said digital data supplied by an external source

selected from the group consisting of an IC chip of a memory button, a computer, a computer network, and combinations thereof;

(b) inputting a desired level for said weld condition into said controller; and,

(c) comparing said value with said desired level to create a command signal to said power supply, said at least one drive or combinations thereof.

129. (Previously Presented) The method as defined in claim 128, including the step of sensing a real time value of said weld condition and disabling said welder when said real time value deviates from said command signal by a selected amount.

130. (Previously Presented) The method as defined in claim 128, wherein at least one weld condition includes a condition selected from the group consisting of travel speed of an external drive, wire feed speed of an external drive, arc current of said power supply, arc voltage of said power supply, and combinations thereof.

131. (Previously Presented) The method as defined in claim 129, wherein at least one weld condition includes a condition selected from the group consisting of travel speed of an external drive, wire feed speed of an external drive, arc current of said power supply, arc voltage of said power supply, and combinations thereof.